CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 85-79
WASTE DISCHARGE REQUIREMENTS

WEST MARIN SANITARY LANDFILL
CLASS III LANDFILL AND CLASS II WASTE
MANAGEMENT UNIT
EYES STATION, MARIN COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. West Marin Sanitary Landfill, owned by Elmer and Hazel Martinelli and operated by Mr. Leroy Martinelli (hereinafter called the discharger, is a Class III landfill located approximately 2 miles northeast of Pt. Reyes Station. The landfill site consists of approximately 50 acres of land fill area, a leachate containment pond, and spray field and is situated in a narrow blind canyon adjacent to Tomasini Creek, a tributry to Tomales Bay, as shown in Attachment A, which is incorporated herein and made a part of this Order.

2. The discharger is currently governed by this Board's Order No. 77-140, prescribing waste discharge requirements for th disposal site. The existing requirements must be modified to comply with Articles 2 3, and 4 of Title 23, Chapter 3, Subchapter 15 of the California Administrative Code which became effective on November 26, 1984 (Subchapter 15). The landfill area must meet the requirements as a Class III landfill. The leachate containment pond meet the requirements as a Class II Waste Management Unit.

3. The discharger accepts approximately 43,000 cubic yards of refuse per year in the active site area. The non-hazardous solid waste comes primarily from the Shoreline Disposal Company, the Countyof Marin, and Cal Trans. Leachate from the site is collected via runoff ditches, french drains, and above ground hoses, to a 49, 500 gallon capacity leachate pond. The supernatant from this pond is sprayed uphill on a 1 acre irrigation area. Any runoff that occurs from the irrigation area is diverted via a runoff ditch back to the leachate collection pond.

4. The disposal site, subsequent to modifications required to comply with this Order, will meet the criteria contained in Subchapter 15 for the classification of the site as a Class III landfill to receive non-hazardous solid waste, and as a Class II waste management unit to receive leachate.

5. The discharger submitted a site evaluation report in July, 1975. This report must be updated, and additional information submitted, utilizing the Subchapter 15 criteria.

6. The site is underlain by sandy clay and clayey gravel. Useable groundwater exists beneath the site. Surface waater that falls on site areas, other than the active face, is intercepted and diverted offsite.

7. The Regional Board adopted a revised Water Quality Plan for the San Francisco Bay Basin (Basin Plan) on July 21, 1982 and this Order implements the water quality objectives stated in that plan for Tomales Bay.

8. The beneficial uses of Tomale Bay are:

   a) Water contact recreation
   b) Non-contact recreation
   c) Ocean Commercial and Sport Fishing
   d) Wildlife Habitat
   e) Preservation of Rare & Endangered Species
   f) Marine Habitat
   h) Fish migration and Spawning
   i) Shellfish Harvesting

9. The action to revise waste discharge requirements and continue operation of an existing landfill is exempt from the California Environmental Quality Act (Public Resources Code Section 21000 et seq.), in accordance with Section 15301 of the Public Resources Code.

10. The Board notified the discharger and interested agency and persons of its intent to prescribe waste discharge requirements for the proposed discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

11. The Board, in a public hearing, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, that the discharger and any other persons that own the land or operate this site shall meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and shall comply with the following:

A. Prohibitions

1. The disposal of wastes shall not create a pollution or nuisance as defined in Section 13050(1) (m) respectively, of the California Water Code.

2. Wastes shall not be placed in or allowed to contact ponded water from any source whatsoever.

3. Wastes shall not be disposed of in any position where they can be carried from the disposal site and discharged into waters of the State which are outside the authorized disposal area.

4. Hazardous wastes and/or Designated waste shall not be deposited nor stored at this site.

5. Waste shall not be placed in the Class III landfill unless it contains at least 50 percent solids.

6. Waste shall not be placed in the Class III landfill unless it contains at least 50 percent solids.

7. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place outside the disposal area:

   a. Surface Waters

      ° Floating, suspended, or deposited macroscopic particulate matter or foam.

      ° Bottom deposits or aquatic growths:

      ° Alteration of temperature, turbidity or apparent color beyond present natural background levels

      ° Visible, floating, suspended or deposited oil or other products of petroleum origin.

- Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentrations.

b. Groundwater

The groundwater shall not be degraded as a result of the solid waste disposal operation.

7. Leachate from wastes and ponded water containing leachate shall not be discharged to waters of the State or outside of the authorized disposal area.

8. Truck wash water or oil shall not be discharged to the landfill or to waters or the United States, unless approved in writing by the Executive Officer.

9. Spraying of leachate is prohibited during rainfall, or at times when soils are saturated.

B. Specifications

1. Water used during disposal site operations shall be limited to a minimal amount necessary for dust control and fire suppression.

2. The site shall be protected from any washout or erosion of wastes or covering material and from inundation, which could occur as a result of a 100 year 24 hour precipitation for the Class III landfill, or a 1000 year 24 hour precipitation for the leachate containment pond.

3. Surface drainage from tributary areas, and internal site drainage for surface or subsurface sources shall not contact or percolate through wastes during disposal operation and for the active life of the site. The perimeter drainage ditches and all other facilities shall be designed to convey the 100 year storm runoff, and withstand differential settlement.

4. The leachate containment pond shall be modified with a liner or liners according to the specifications and standards under Section 2542 and general construction standards under Section 2341 of Subchapter 15, after approval of the proposed modifications by the Executive Officer. An exception to this may be granted by the Board based on a demonstration submitted by the discharger pursuant to Section 2510(b) and (c) of Subchapter 15.

5. The site shall be located in order to comply with criteria and standards under Section 2533 of Subchapter 15. An exemption to this may be granted by the Board based on a demonstration submitted by the discharger pursuant to Section 2510(b) and (c) of Subchapter 15.

6. The site shall be operated to ensure that wastes will be a minimum of 5 feet above the highest anticipated elevation of underlying ground water.

7. The discharger shall assure that the foundation of the site and the structures which control leachate, surface drainage, erosion and gas for this site are maintained under conditions generated during the maximum credible earthquake for the Class II unit and the maximum probable earthquake for the Class III unit.

8. The leachate containment pond (Class II waste management unit) shall contain a minimum of 2 feet of freeboard at all times, and shall meet the criteria contained in Section 2548 of Subchapter 15.

9. As portions of the Class III landfill are closed, the exterior surfaces shall be graded to a minimum slope of three percent in order to promote lateral runoff of precipitation. In addition, all completed disposal areas shall be covered with a minimum of three feet of uncontaminated material one foot of which is compacted to attain a permeability no greater than $1X10^{-6}$ cm/sec. A lesser slope, thickness of final cover or permeability may be allowed by the Board upon demonstration that erosion control, percolation control, and coverage of refuse will not be adversely affected.

C. Provisions

1. The discharger shall comply with all prohibitions

specifications, and provisions of this Order immediately upon adoption, except for B.2. B.3, B.4. B.5, and B.7. The discharger shall comply with these specifications in accordance with the following time schedule:

a. Specification B.2, B.3. and B.7

1.	Submit report demonstrating that compliance is being achieved or submit plan and time schedule for achieving compliance	by Aug. 16, 1985
2.	Achieve compliance if not demonstrated above	by Oct. 15, 1985

b. Specification B.4. and B.5.

1.	Submit report proposing necessary site modifications or submit demonstration for exception	by Aug. 1, 1985
2.	Achieve compliance	by Oct. 1, 1985

2. Reports pursuant to Provision C.1 shall be prepared under the supervision of a registerd engineer or certified engineering geologist.

3. A revised site closure plan which includes a detailed description of site closure actions already implemented shall be submitted by October 31, 1985, in compliance with the provisions set forth in Article 8 of Subchapter 15.

4. Within 30 days after the completion of filling of any portions of the disposal areas, submit documentation that the exterior surfaces of these newly completed portions are covered and graded in accordance with Specification B.9.

5. The discharger shall remove and relocate any wastes which are discharged at this site in violations of these requirements.

6. The discharger shall file with this Board a report of any material change or proposed change in the character, location of quantity of this waste discharge. For the purpose of these requirements, this includes any proposed change in the boundaries, contours of ownership of the disposal area(s).

7. The discharger shall maintain a copy of this Order at the site so as to be available at all times to site operating personnel.

8. This Board considers the property owner and site operator to have a continuing responsibility for correcting any problems within their reasonable control which arise in the future as a result of this waste discharge or water applied to this property during subsequent use of the land for other purposes.

9. The discharger is required comply with a Self-Monitoring Program as ordered by the Executive Officer.

10. The discharger shall permit the Regional Board:

    (a) Entry upon premises on which wastes are located or in which any required records are kept.

    (b) Access to copy any records required to be kept under terms and conditions of this Order.

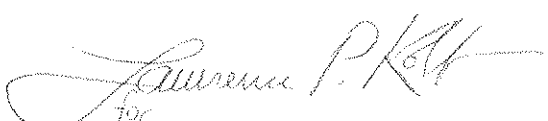
    (c) Inspection of monitoring equipment or records, and

    (d) Sampling of any discharge.

11. These requirements do not authorize commission of any act causing injury to the property, of another or of the public, do not convey any property rights, does not remove liability under federal, state or local laws and does not authorize the discharge of waste without appropriate federal, state or local permits, authorization or determinations.

12. Orders No. 77-140 and 80-19 are hereby rescinded.

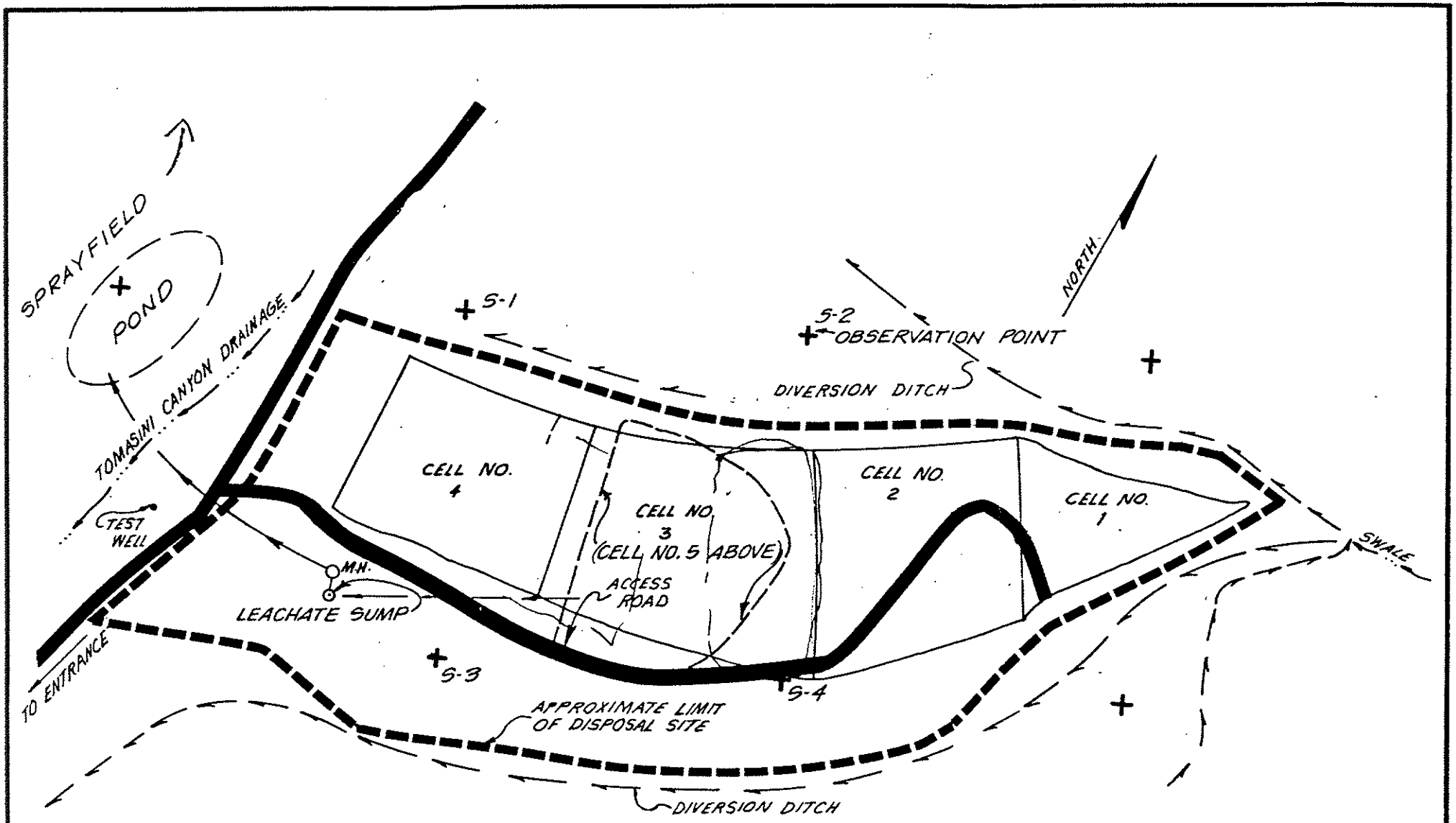
I, Roger B. James, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Franciso Bay Region, on June 19, 1985.



for ROGER B. JAMES
Executive Officer

Attachment:
A

Attachment A



+ Revised May 1981, Pond, M.H & Sprayfield added
Revised Jan., 80, Road realigned, Cell No. 5 added.

REVISED JAN '79 -- DITCHES REALIGNED

SKETCH OF DISPOSAL SITE
WEST MARIN SANITARY LANDFILL

APPROXIMATE SCALE 1" = 200'

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

WEST MARIN LANDFILL

CLASS III SOLID WASTE DISPOSAL SITE
MARIN COUNTY, CALIFORNIA

ORDER NO. 85-79

CONSISTS OF

PARTS A & B

PART A

A. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No.73-16. This Self-Monitoring Program is issued in accordance with Provision C.9 of Regional Board Order No. 85-79.

The principal purposes of a self-monitoring program by a waste discharger are: (1) to document compliance with waste discharge requirements and prohibitions established by the Board, (2) to facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge, (3) to develop or assist in the development of effluent standards of performance, pretreatment and toxicity standards, and other standards, and (4) to prepare water and wastewater quality inventories.

B. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to most recent version of Standard Methods for the Analysis of Wastewater and in accordance with an approved sampling and analysis plan.

Water and waste analysis shall be performed by a laboratory approved for these analyses by the State Department of Health. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Regional Board.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

C. DEFINITION OF TERMS

1. A grab sample is a discrete sample collected at any time.

2. A composite sample is a sample composed of individual grab samples mixed in proportions varying not more than plus or minus five percent from the instantaneous rate of waste flow corresponding to each grab sample collected at regular intervals not greater than one hour, or collected by the use of continuous automatic

sampling devices capable of attaining the proportional accuracy stipulated above throughout the period of discharge or 24 consecutive hours, whichever is shorter.

3. Receiving waters refers to any water which actually or potentially receives surface or groundwaters which pass over, through, or under waste materials or contaminated soils. In this case the groundwater beneath and adjacent to the landfill areas, the surface runoff from the site, the unnamed tributary creek discharging from Keller Canyon are considered the receiving waters.

4. Standard observations refer to:

a. Receiving Waters
   1) Floating and suspended materials of waste origin: presence or absence, source, and size of affected area.
   2) Discoloration and turbidity: description of color, source, and size of affected area.
   3) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
   4) Evidence of beneficial use: presence of water associated wildlife
   5) Flow rate.
   6) Weather conditions: wind direction and estimated velocity, total precipitation during the previous five days and on the day of observation.

b. Perimeter of the waste management unit.
   1) Evidence of liquid leaving or entering the waste management unit, estimated size of affected area and flow rate. (Show affected area on map)
   2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
   3) Evidence of erosion and/or daylighted refuse.

c. The waste management unit.
   1) Evidence of ponded water at any point on the waste management facility.
   2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
   3) Evidence of erosion and/or daylighted refuse.
   4) Standard analysis and measurements refer to:
      a. pH
      b. Electrical Conductivity (EC)
      c. Total Dissolved Solids (TDS)
      d. Total Phenols

e. Chloride
f. Total Organic Carbon
g. Nitrate Nitrogen
h. Total Kjeldahl Nitrogen
i. Water elevation in feet above Mean Sea level
j. Settleable Solids, ml/l/hr
k. Turbidity, NTU
l. EPA Method 624, identifying all peaks greater than 1 microgram/liter
m. EPA Method 625, identifying all peaks greater than 1 microgram/liter.

D. SCHEDULE OF SAMPLING, ANALYSIS, AND OBSERVATIONS

The discharger is required to perform sampling, analysis, and observations according to the schedule specified in Part B, and the requirements in Article 5 of Chapter 15.

E. RECORDS TO BE MAINTAINED

Written reports shall be maintained by the discharger, and shall be retained for a minimum of five years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board. Such records shall show the following for each sample:

1. Identity of sample and sample station number.

2. Date and time of sampling.

3. Date and time that analyses are started and completed, and name of the personnel performing the analyses.

4. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used. A reference to a specific section of a reference required in Part A, Section B is satisfactory.

5. Calculation of results.

6. Results of analyses, and detection limits for each analyses.

F. REPORTS TO BE FILED WITH THE BOARD

1. Written self-monitoring reports shall be filed by the 15th day of the month following the report period. In addition an annual report shall be filed as indicated in F.2. The reports shall be comprised of the following:

a. Letter of Transmittal

A letter transmitting the essential points in each self-monitoring report should accompany each report. Such a letter shall include a discussion of any requirement violations found during the last report period, and actions taken or planned for correcting the violations, such as, operation and/or facilities modifications. If the discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred in the last report period this shall be stated in the letter of transmittal. Monitoring reports and the letter transmitting the monitoring reports shall be signed by a principal executive officer at the level of vice president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct.

b. Each monitoring report shall include a compliance evaluation summary sheet. This sheet shall contain:

1) The sample mean and the sample variance for all sample sets taken from all compliance points, and shall determine if the difference between the mean of each sample set and the water quality protection standard is significant at the 0.05 level using Cochran's Approximation to the Behrens-Fisher Student's t-test as described in Appendix II of Chapter 15. The discharger may propose an alternative statistical procedure to be used in making this determination pursuant to Section 2555(h)(3) of Chapter 15. If a statistically significant difference is found this shall be reported as a suspected requirement violation in the letter of transmittal.

2) A graphic description of the velocity and direction of groundwater flow under/around the waste management unit, based upon the past and present water level elevations and pertinent

visual observations.

3) The method and time of water level measurement, the type of pump used for purging, pump placement in the well; method of purging, pumping rate, equipment and methods used to monitor field pH, temperature, and conductivity during purging, calibration of the field equipment, results of the pH, temperature conductivity and turbidity testing, well recovery time, and method of disposing of the purge water.

4) Type of pump used, pump placement for sampling, a detailed description of the sampling procedure; number and description of equipment, field and travel blanks; number and description of duplicate samples; type of sample containers and preservatives used, the date and time of sampling, the name and qualifications of the person actually taking the samples, and any other observations.

c. A map or aerial photograph shall accompany each report showing observation and monitoring station locations.

d. Laboratory statements of results of analyses specified in Part B must be included in each report. The director of the laboratory whose name appears on the laboratory certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Board.

1) The methods of analyses and detection limits must be appropriate for the expected concentrations. Specific methods of analyses must be identified. If methods other than EPA approved methods or Standard Methods are used, the exact methodology must be submitted for review.

2) In addition to the results of the analyses, laboratory quality control/quality assurance (QA/QC) information must be included in the monitoring report. The laboratory QA/QC information should include the method, equipment and analytical detection limits; the recovery rates; an explanation for any recovery rate that is less than 80%; the results of equipment and method blanks; the results of spiked and surrogote samples; the frequency of quality control analysis; and the name and qualifications of the person(s) performing the analyses.

e. An evaluation of the effectiveness of the leachate monitoring/ control facilities.

f. A summary and certification of completion of all standard observations for the waste management unit, the perimeter of the waste management unit, and the receiving waters.

g. The quantity and types of wastes disposed of during the past quarter, and the locations of the disposal operations.

2. CONTINGENCY REPORTING

a. A report shall be made by telephone of any seepage from the disposal area immediately after it is discovered. A written report shall be filed with the Board within five days. This report shall contain the following information:

1) a map showing the location(s) of discharge;
2) approximate flow rate;
3) nature of effects; i.e. all pertinent observations and analyses; and
4) corrective measures underway or proposed.

b. A report shall be made in writing to the Board within seven days if a statistically significant difference is found between a self- monitoring sample set and a WQPS. Notification shall indicate what WQPS(s) have been exceeded. The discharger shall immediately resample at the compliance point(s) where this difference has been found and analyze another sample set of at least four portions split in the laboratory from the source sample.

c. If resampling and analysis confirms the earlier finding of a statistically significant difference between self-monitoring results and WQPS(s) the discharger must submit to the Board within 90 days an amended Report of Waste Discharge for establishment of a verification monitoring program meeting the requirements of Section 2557 of Chapter 15. This submittal shall include the information required in Section 2556(b)(2) of Chapter 15.

d. The discharger must notify the Board within seven days if the verification monitoring program finds a statistically significant difference between samples from the verification monitoring program point of compliance and the WQPS(s).

e. If such a difference or differences are found by the verification monitoring program, it will be concluded that the discharger is out of compliance with this Order. In this event the discharger shall submit within 180 days an amended Report of Waste Discharge requesting authorization to establish a corrective action program meeting the requirements of Section 2558 of Chapter 15. This submittal shall include the information required in Section 2557(g)(3) of Chapter 15.

3. **REPORTING**

By January 31 of each year the discharger shall submit an annual report to the Board covering the previous calendar year. This report shall contain:

a. Tabular and graphical summaries of the monitoring data obtained during the previous year.

b. A comprehensive discussion of the compliance record, and the corrective actions taken or planned which may be needed to bring the discharger into full compliance with the waste discharge requirements.

c. A map showing the area, if any, in which filling has been completed during the previous calendar year.

d. A written summary of the groundwater analyses indicating any change in the quality of the groundwater.

e. An evaluation of the effectiveness of the leachate monitoring/ control facilities.

4. A boring log shall be submitted for each sampling well established for this monitoring program, as well as a report of inspection or certification that each well has been constructed in accordance with the construction standards of the Department of Water Resources. These shall be submitted within 30 days after well installation.

Part B

1. DESCRIPTION OF OBSERVATION STATIONS AND SCHEDULE OF OBSERVATIONS

A. WASTE MONITORING

1. Record the total volume and weight of refuse in cubic yards and tons disposed at the site during the month. Report this information quarterly.

2. Record a description of waste stream to include percentage of waste type, ie., Residential, Commercial, Industrial or Construction/ Demolition debris. Report this information quarterly

3. Record the volume of fill completed, in cubic yards, showing locations and dimensions on a sketch or map. Report this information quarterly.

4. Record location and aerial extent of disposal of each waste type during the month. Report this information quarterly.

B. ON-SITE OBSERVATIONS

Station	Description
S-1 Thru S-'n'	Observation stations in grid squares delineated by a 500 foot grid network

Station	Frequency of Observations	Observations
All S Stations	Monthly throughout year. Report Qrtrly.	Standard Observation as per Part A

B. SEEPAGE AND/OR LEACHATE MONITORING

STATION	DESCRIPTION
L-1 thru L'n'	To be reported only when leachate leaves the site. At a point at which discharge occurs from the disposal area(s). Include a map indicating location(s) of discharge(s).

	Type of Sample and Frequency	Analysis
All L Stations	Grab Sample Daily, or occurrence.	Standard Parameters per Part A

A report shall be made by telephone of any seepage or leachate leaving the property immediately after occurrence. A written report shall be filed with this Board within 5 calendar days and shall contain the following information: 1) Map showing location(s) of discharge 2) flow rate 3) nature of effect ie., discoloration of receiving water, and size of effected area, and 4) corrective measures taken.

C. ON SITE OBSERVATION

Station	Description
R-1, R-2 & R-3	Receiving Waters (when present) Observation stations along Tomasini Creek, 200' downstream, 200' upstream and mid-point from site.

Station	Frequency of Observations	Observations
All R Stations	Monthly, when water is present. Report Qrtrly.	Standard Observation per Part A

D. GROUND WATER AND PIEZOMETRIC GRADIENT MONITORING

Station	Description
W-1 thru W-7	Ground water monitoring wells located along the boundary of the landfill outside the fill area as shown on Attached map.
LS	The Leachate sump, LS, located downgradient and westerly of site.
SP	The Natural Springs, SP, located upgradient and easterly of site may be used as a ground water reference source.
P ***	Leachate Pond Water, P_W, Precipitant Sludge, P_S. Retrieve representative samples of pond(s).

Station	Type of Sample and Frequency	Analysis
W,LS,SP,P & R	Grab Sample Monthly Report Quarterly	Standard Parameters per Part A

Station	Type of Sample and Frequency	Analysis
W,LS,SP,P & R	Grab Sample Quarterly Report Quarterly (P_S Sample Annualy ***)	EPA 6010* & Standard parameters per Part A

* Due to the ICP (Inductively Coupled Argon Plasma Emission Spectrometry Scan, EPA 6010) limitations for Hg and Se, use the atomic absorption method for these two elements.

** Use EPA 8240 & 8250 when appropriate

*** The leachate ponds will be monitored and inspected as follows:

1) Sample and test pond water monthly and test for constituents listed above.
2) Sample the sludge precipitant in each pond annually and test for constituents listed in Part A, Standard Analysis.
3) Determine depth to non-wetted clay of the clay liner in each pond annually or verify leachate control with an approved lysimeter system pursuant to Sect. 2542(e) of Chapter 15 .

E. PROVISIONS

I, Steven R. Ritchie, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

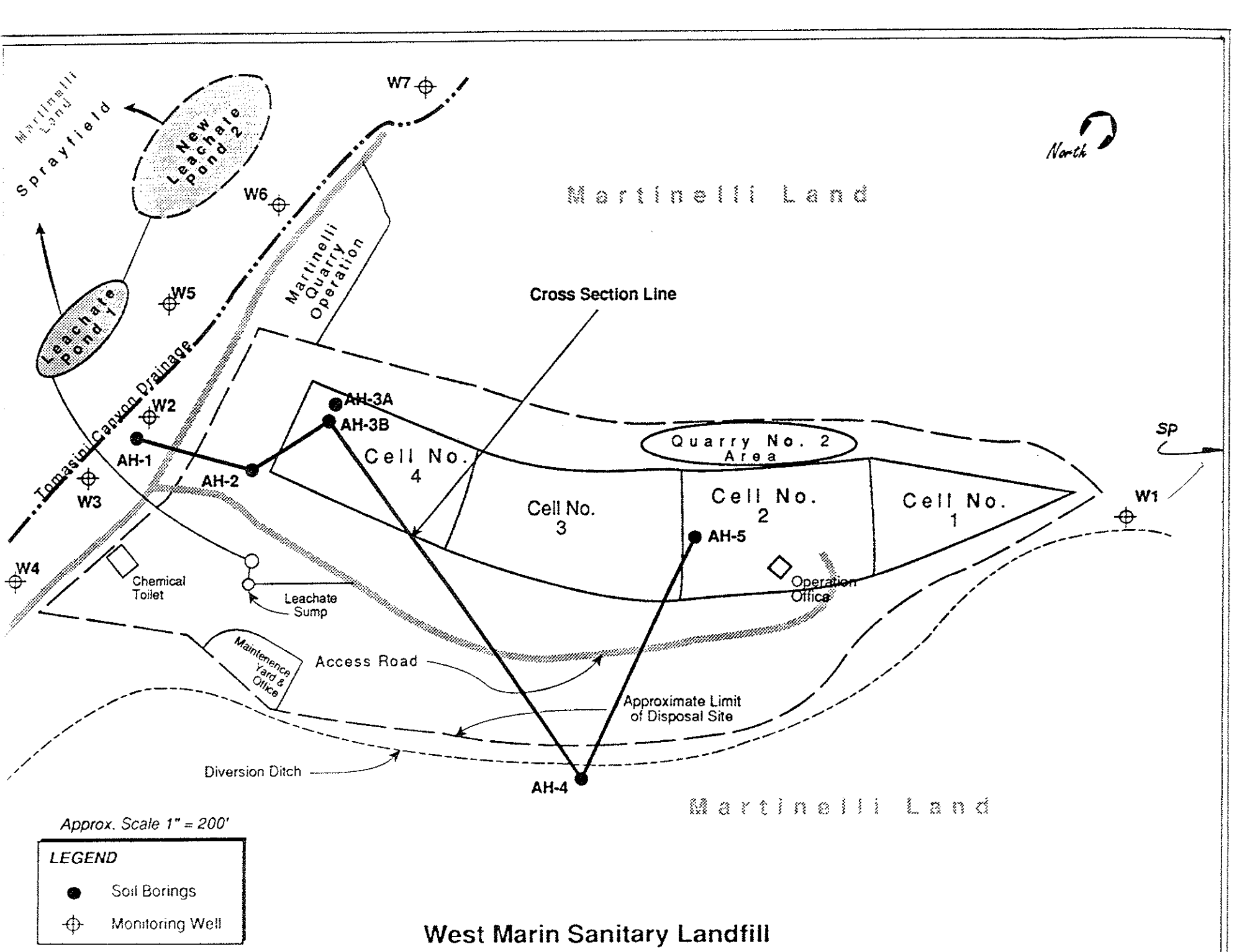
1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 85-79.

2. Is effective on the date shown below.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or when requested from the discharger, revisions will be ordered by the Executive Officer.

Steven R. Ritchie
Executive Officer

1/31/91
Effective Date



West Marin Sanitary Landfill